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NCECO-D

January 9, 1985

**SUBJECT: Civil Action 80-73699 Consent Decree, BASF Wyandotte Corp. (BWC),
Riverview, Michigan Site Modification Program.**

Mr. Jonas A. Dikinis
Waste Management Division
USEPA
Region 5
230 South Dearborn St.
Chicago, Illinois 60604

Dear Mr. Dikinis:

Monday, January 7, 1985 Mr. Rod Brandau of BWC gave Mr. Carl Woodruff of my office the following status update on the Riverview site:

- 1) Sealing of the center ditch concrete liner joints was completed Friday, January 4, 1985. There is no evidence of further seepage either from the joints or the ditch outlet into the Trenton Channel.
- 2) Punch list items remaining to be done consist of removal of the perimeter straw bales, filling in of several low areas and repair of tire track damage to the grass areas. This will be done by the Contractor when the ground is hard enough to support equipment movement without damage to the ground surface.
- 3) The grass areas will be rolled and mowed next Spring.
- 4) Installation of the monitoring wells is expected to start in mid-February, 1985.

Since Mr. Brandau is being assigned to another project, he requested that future contact with BWC be made through Mr. Bill Axce.

If you require further information please contact Mr. Woodruff at 8-226-3074 (FTS).

Sincerely,

Ronald I. Bobbitt
Chief, Detroit Area Office

Copy Furnished

L. Lipinski (MDNR)

CC: Constr. Br.

DLA
Caw



DEPARTMENT OF THE ARMY

DETROIT DISTRICT, CORPS OF ENGINEERS
BOX 1027
DETROIT, MICHIGAN 48231

REPLY TO
ATTENTION OF

NOV 07 1984

Construction-Operations Division
Construction Branch

SUBJECT: Civil Action 80-73699 - Consent Decree, BASF Wyandotte Corporation (BWC), Riverview, Michigan, Site Modification Program

Mr. Jonas Dikinis
c/o Waste Management Division
Region V, EPA
230 S. Dearborn Street
Chicago, Illinois 60604

Dear Mr. Dikinis:

Mr. Grazioli is currently serving as Chief, Engineering Division, and, in his absence, I am serving as Chief, Construction-Operations Division.

Mr. Grazioli's October 26, 1984 letter updated you on the status of the remedial work done to bring the compacted clay cover in the northern site area into compliance with the Consent Decree.

Mr. Grazioli's October 4, 1984 letter discussed concerns about seepage problems on the site, and requested direction for handling the center ditch problem. I am writing this letter to bring you up to date on the seepage problems and to again express concern about the center ditch seepage discharge to the Trenton Channel.

A chronological record of events to date is attached, as are sketches of BWC's planned center ditch modifications.

It is my understanding that the center ditch area is not considered a contaminated site area under the Consent Decree (See item 5. of the attached chronology) and that, as long as BWC is making an effort to halt the seepage discharge to the Trenton Channel, EPA is reluctant to direct corrective action, or to modify the Consent Decree to include correction of the center ditch seepage problem.

Allowing continued seepage discharge to the Trenton Channel should not be considered acceptable, in view of test results presented to you by BWC on September 18, 1984 showing measurable amounts of Arsenic, Mercury and Pentachlorophenol in the center ditch seepage discharge.

BWC's modification efforts to halt the seepage into the Trenton Channel from the center ditch are not complete, so it is not yet possible to determine if they will be successful. There is concern, however, that the modifications will only be a stop gap measure until the seepage liquid contained in the site soils finds a new discharge path to the Trenton Channel.

Should BWC's center ditch modifications fail to stop the seepage discharge to the channel, it is again recommended that a hydrogeological study be done to determine the extent of the seepage problem. After determining the scope of the problem, a plan should be developed to correct it.

Alternative plans should be considered and evaluated with the ultimate aim of quickly and permanently stopping further seepage discharge from the site to the Trenton Channel. The following alternatives are presented for consideration:

a. Construction of a sump and drainage system to collect site seepage before it reaches the Trenton Channel, as suggested in Mr. Grazioli's October 4, 1984 letter.

b. Extend the two foot clay coverage requirement to the entire site area. Drainage ditches would be constructed in new clay material and be isolated from the original on site soils. Also, construct a slurry wall parallel to the Trenton Channel along the east edge of the site. The combination cap and slurry wall would prevent additions to the ground water from precipitation, and movement of contaminated ground water into the Trenton Channel.

Earlier seepage problems in the south ditch area and along the Trenton Channel fence line, near the north gate, appear to have cleared up (see the October 4, letter and chronology). Recurrence of seepage in these areas has not been observed to date.

The October 9, 1984 Stop Work Order (refer to Mr. Grazioli's October 26, 1984 letter) expressed concern about the reddish brown liquid observed pooling on the ground surface, in the area west of the north catch basin around Station 2+80, outside of the north compacted clay cover limits. This liquid was similar in appearance to the center ditch seepage discharge. Subsequent grading and placement of top soil appears to have corrected the pooling problem in this area.

Under Section V.A(9), "Final Grading, Topsoil and Vegetative Cover," BWC is required as part of the Site Modification Program to prevent the occurrence of standing water on the site. Under Section V.C, "Inspection and Maintenance Program," BWC is responsible for

maintaining the site, including the drainage patterns constructed under the Site Modification Program of Section V.A.

All of the above problem areas, except for the center ditch, appear to have cleared up, however, they should be carefully monitored as part of the inspection program required by the Consent Decree.

Should BWC's modifications to the center ditch halt the seepage discharge to the Channel, it is recommended that the area be monitored at more frequent intervals than presently required by the Consent Decree, perhaps weekly for the first year, and less frequently thereafter, if the seepage problem doesn't recur.

Your earliest response to the above concerns and recommendations is requested. Contact Mr. Carl Woodruff at 8-226-3074 (FTS) if you have any questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "P. McCallister", with a horizontal line extending from the end of the signature.

P. McCallister, P.E., Chief,
Construction-Operations Division

Attachments

Copies Furnished:

MDNR (Att: L. Lipinski)
NCECO-D

Chronological Record of Events
Related to BASF Wyandotte Corp.
Riverview Site Seepage Problem.

1. For events prior to October 3, 1984 refer to Mr. Mark S. Grazioli's letter of October 4, 1984 to Mr. Jonas Dikinis of Region V, EPA.
2. October 4, 1984 -- Site was visited by Mr. Woodruff and pictures taken. Liquid was still seeping from under the end of the center ditch concrete liner into the Trenton Channel. Mr. R. Jameson, CoE on site inspector, reported that Mr. Dale Roush (BASF) visited the site to view the center ditch seepage. Mr. Hogan (BASF) advised that BASF was looking into solutions to the problem.

By telephone, Mr. Bill Axce informed Mr. Woodruff that BWC was looking at tearing out the end of the ditch liner and sealing with clay fill, then rebuilding the liner.

3. October 5, 1984 -- Mr. Woodruff briefed M. Gregg Vanderlaan of Region V EPA on site problems in the North Compacted Clay Cover area (Refer to Mr. Grazioli's letter of October 26, 1984 for a record of events covering this item). Mr. Vanderlaan was also advised of BWC's plan to correct the center ditch seepage discharge.

Mr. R. Jameson (CoE) reports that Mr. Hogan (BWC) further advised him that BWC plans to remove the concrete ditch liner from the Trenton Channel back to the fence line, backfill with clay and replace the concrete liner. The joints would also be enlarged by saw cutting and then filled with a sealer to prevent further seepage at the joints.

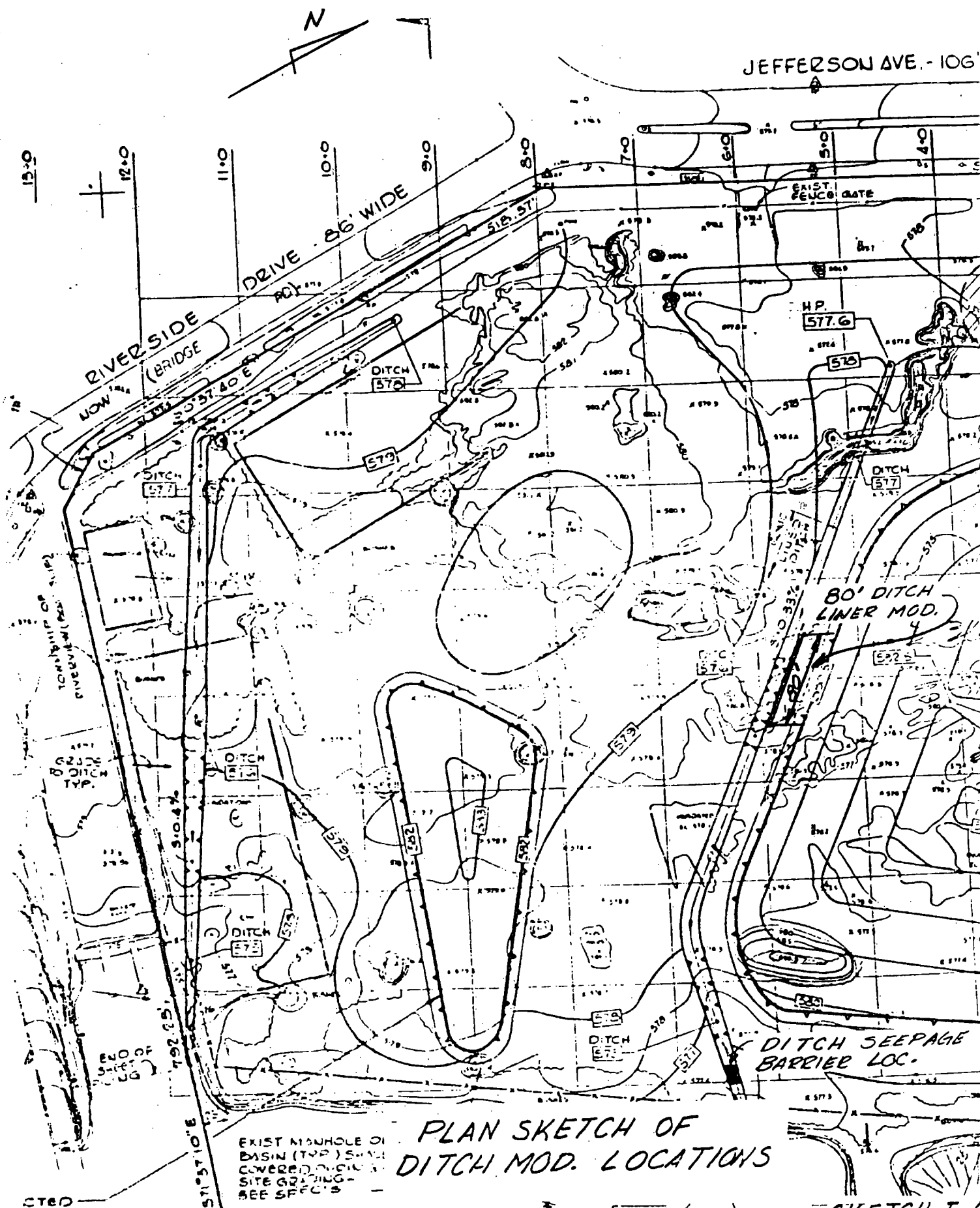
4. October 9, 1984 -- Mr. Woodruff (CoE) updated Mr. Dikinis (EPA) on the center ditch by telephone during discussion of the north clay cover problem. He informed Mr. Dikinis of BWC's plans to correct the seepage at the Trenton Channel end and at the joints. BWC had not yet indicated what would be done along the edges of the ditch where seepage was still pooling in soil depressions.
5. October 10, 1984 -- A meeting was held at the site between Mr. Mike Repasky, Mr. Rod Brandau and Mr. Bill Hogan of BWC, and Mr. Dick Albert, Mr. Joe Kubinski and Mr. Carl Woodruff of CoE to discuss a stop work order issued October 9, 1984 on the North Compacted Clay Cover area, (Refer to Mr. Grazioli's October 26, 1984 letter). At this meeting BWC presented their plan to modify the center ditch in order to stop further seepage discharge into the Trenton Channel. This plan consisted of the following:
 - a) In the area where seepage liquid is pooling along the north edge of the ditch an 80 ft. strip, approximately 40 ft. either side of Station 5, 2 feet deep and cut back along the new north slope to a point approximately 6 inches below level grade (about 4 to 6 feet wide) will be excavated and filled with 18 inches of clay. A visqueen barrier will be laid on top of the clay and 4 inches of concrete poured over the visqueen. Construction joints will be sealed to prevent leakage. See the attached sketches I-A & B.
 - b) To prevent seepage from discharging into the Trenton Channel from the center ditch BWC is planning to rip out 20 ft. of the concrete ditch liner on the property, or west, side of the fence. A hypolon liner (45+/-mil) will be laid with the downstream end in a 3 ft. deep by 3" or 4" wide trench and the upstream end anchored to the bottom of the new concrete liner. The trench will be filled with 6 inches of clay topped with 2'-6" of concrete with the hypolon liner centered in the filler. The trench will extend across perpendicular to the ditch, 10 ft. either side of the ditch center line. See the attached sketches I-A & B.

- c) At the discharge end of the ditch, to eliminate the erosion of the channel bottom caused by the ditch outfall during rain periods, BWC is going to extend the concrete surface 10 feet past the current shore line and replace the rip rap that was disturbed or lost during construction. An amendment to the MDNR, and Department of the Army permits will be required for this work. See the attached sketches II-A & B.

Mr. Woodruff updated Mr. Dikinis on BWC's planned center ditch modifications to halt the seepage discharge. Mr. Dikinis characterized it as a "band aid" approach which may or may not solve the problem. He further stated that, since the Consent Decree did not consider the center ditch area a contaminated area, BWC is only obligated to prevent runoff to the Trenton Channel, of any leachate generated in the area, and that it was up to BWC as to how such prevention would be accomplished. To require a specific "Fix" EPA would have to renegotiate The Consent Decree. This would require additional litigation. EPA considers BWC's continued willingness to correct the center ditch problems acceptable.

6. October 15, 1984 -- BWC's contractor started excavating the 80 ft. strip along the north edge of the center ditch. The area was very wet and soft due to recent precipitation. The excavated material contained a lot of debris and remnants of steel and cardboard barrels.
7. October 17, 1984 -- The amended Department of the Army Permit 84-07-06 was delivered to BWC. Refer to attached Sketches II -A & B. MDNR approval is also required and BWC is following up on it.
8. October 17-21, 1984 -- No work due to weather.
9. October 22 & 23, 1984 -- During site visit, noted that the excavation along the north side of center ditch appeared full of water mixed with seepage liquid. Also noted that the soil consisted of dark grey to black material mixed with debris and, as noted above, remnants of steel and cardboard containers. The excavated material was piled near the ditch, for eventual transport to the northeast portion of the north compacted clay cover area, for burial with the excavated material from the problem areas discussed in Mr. Grazioli's October 26, 1984 letter.
10. October 24 thru 26 -- No work done on center ditch modifications due to wet conditions. Seepage at ditch continues.
11. October 30, 1984 -- BWC has placed the clay and poured the concrete liner extension in the 80 ft. section along the north side of the center ditch. A 20 ft. section of ditch liner near the east fence line has been removed. A 3" to 4" trench will be cut for the hypolon liner. New rip rap is being placed off the end of the ditch preparatory to constructing the 10 Ft. ditch extension. Refer to attached Sketches I-A & I-B.

CoE will continue to monitor the center ditch modification work and site Modification Program thru November 15, 1984, the Consent Decree completion date for the Site Modification Program. If work is completed sooner than November 15, 1984 EPA will be notified and monitoring will cease if EPA is agreeable.

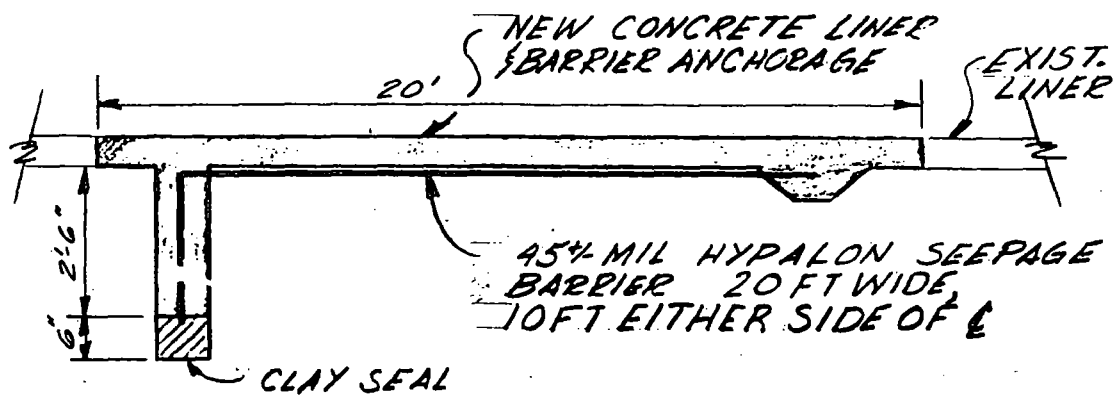
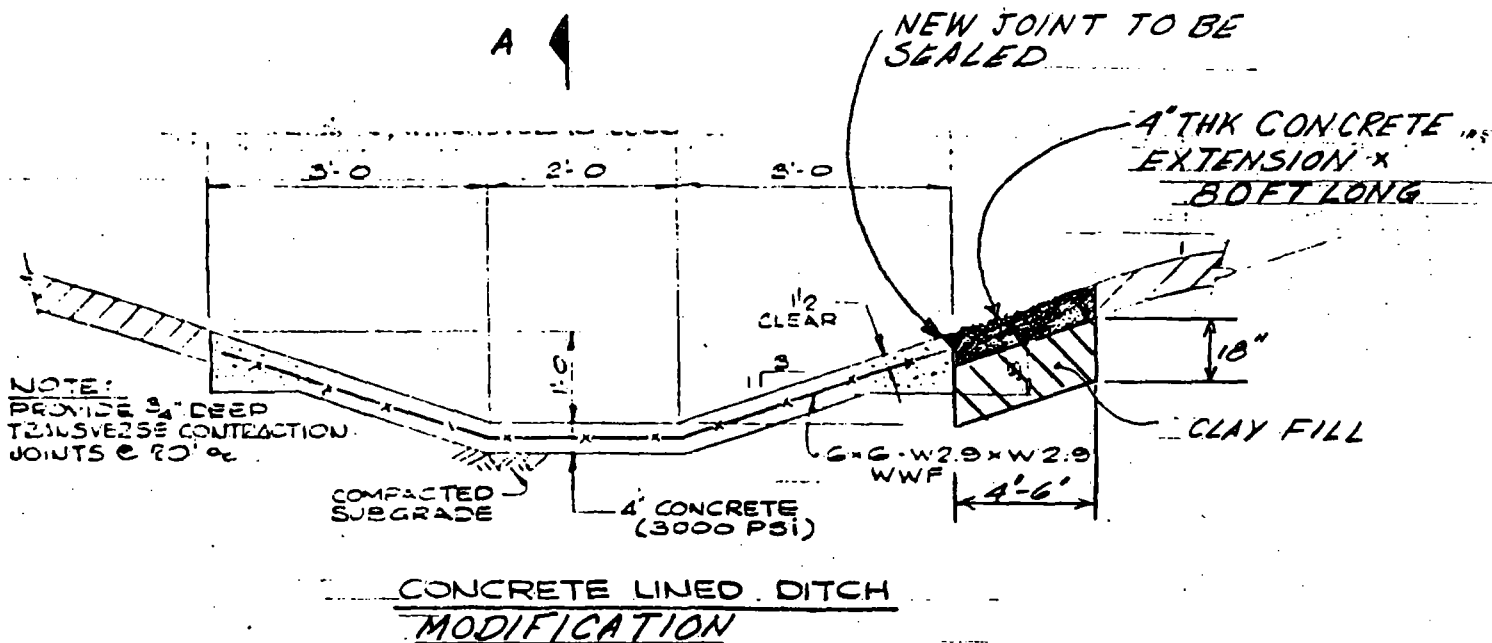


EXIST. MASHOLE OF
BASIN (TYP.) SHOWN
COVERED DITCH
SITE GRADING -
SEE SPEC'S

PLAN SKETCH OF DITCH MOD. LOCATIONS

577.6
10' GATES LOCATION

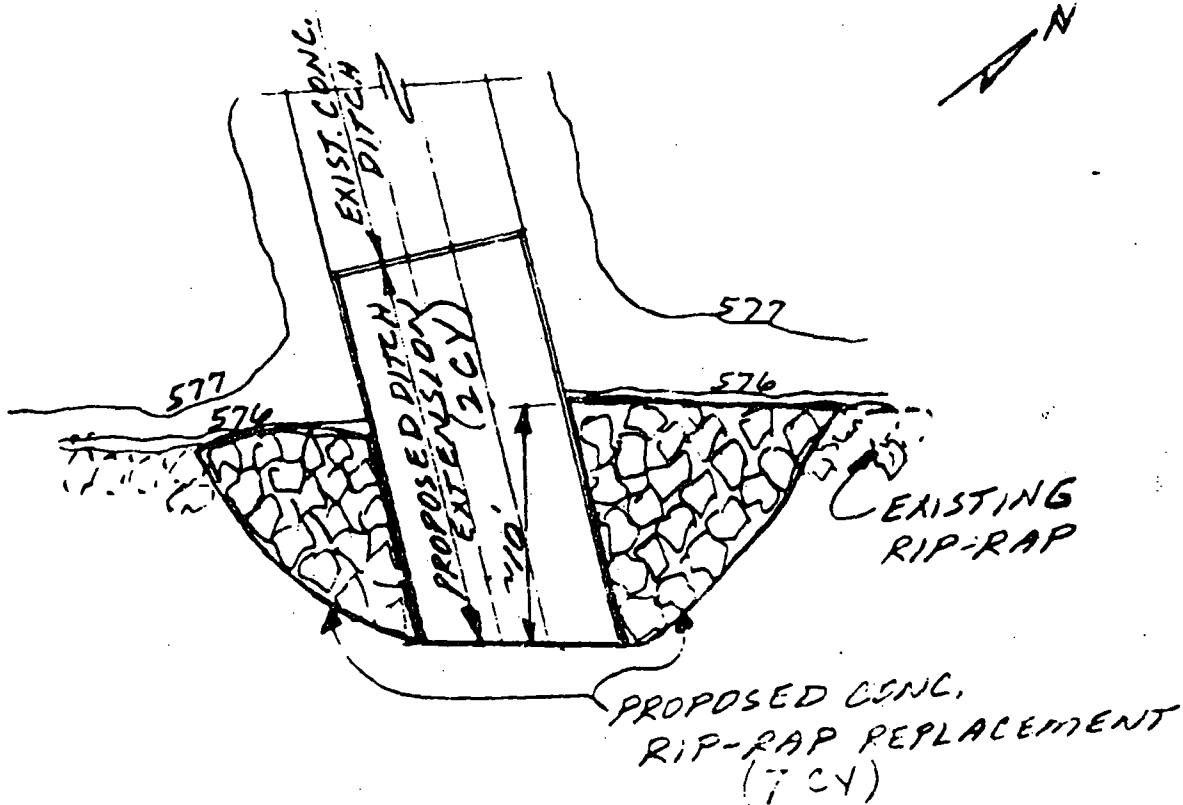
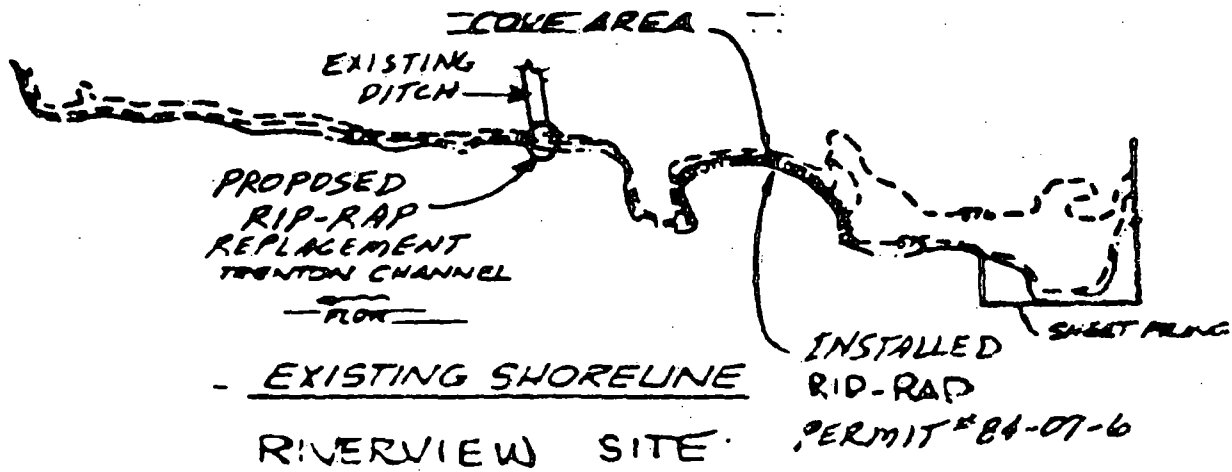
10' GATES LOCATION



SECTION A-A @ BARRIER LOCATION
NO SCALE

SKETCH I-B
10-30-84
CLW

CONTOURS BASED ON
AERIAL PHOTO 1-82



PLAN-DITCH OUTFALL

APPLICANT: BASE WYANDOTTE CORP.

LOCATION: CITY OF RIVERVIEW

WAYNE COUNTY

TRENTON CHANNEL - DETROIT RIVER

REPLACE RIP-RAP ON PORTION OF SHORELINE

RIVERVIEW SITE

Attachment 4

SKETCH II-A